

## CLAIMS

1) A method for the surface treatment of a metal substrate, consisting in applying, using an electrode, an electrical discharge having a voltage of between 17,000 V and 49,000 V and a frequency of between 18 kHz and 24 kHz on the surface of the metal substrate, whether previously painted or not, to be treated.

2) The method according to Claim 1, characterized in that the voltage generated is approximately 30,000 V.

3) The method according to Claim 1, characterized in that the frequency used is approximately 22 kHz.

4) The method according to any one of the preceding claims, in which the metal substrate is previously painted.

5) The method according to Claim 4, in which the paint that coats the metal substrate is further coated by means of lithography, ink printing.

6) The method according to the preceding claims, in which the metal substrate is not previously painted.

7) A device for the surface treatment of a metal substrate according to the method as per Claims 1 to

3, characterized in that the electrode is constituted by a conductive rod made of stainless steel or aluminium coated with a layer of insulating ceramic material.

8) A metal substrate, in particular for the packaging of foodstuffs, whether previously painted or not treated, according to the method referred to in Claims 1 to 6 and with the device according to Claim 7.